

Health Insurance Coverage of Immigrants Living in the United States: Differences by Citizenship Status and Country of Origin

ABSTRACT

Objectives. This study examined health insurance coverage among immigrants who are not US citizens and among individuals from the 16 countries with the largest number of immigrants living in the United States.

Methods. We analyzed data from the 1998 Current Population Survey, using logistic regression to standardize rates of employer-sponsored coverage by country of origin.

Results. In 1997, 16.7 million immigrants were not US citizens. Among noncitizens, 43% of children and 12% of elders lacked health insurance, compared with 14% of nonimmigrant children and 1% of nonimmigrant elders. Approximately 50% of noncitizen full-time workers had employer-sponsored coverage, compared with 81% of nonimmigrant full-time workers. Immigrants from Guatemala, Mexico, El Salvador, Haiti, Korea, and Vietnam were the most likely to be uninsured. Among immigrants who worked full-time, sociodemographic and employment characteristics accounted for most of the variation in employer health insurance. For Central American immigrants, legal status may play a role in high uninsurance rates.

Conclusions. Immigrants who are not US citizens are much less likely to receive employer-sponsored health insurance or government coverage; 44% are uninsured. Ongoing debates on health insurance reform and efforts to improve coverage will need to focus attention on this group. (*Am J Public Health*. 2000;90:917-923)

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Since 1970, the foreign-born proportion of the US population has been steadily rising; in 1996, nearly 10% of the US population was born in another country.¹ As occurred at the beginning of this century, when 15% of the population was foreign born,² this increase in the number of immigrants has been accompanied by anti-immigrant sentiment, including attempts to restrict immigrants' access to the health care system. Although Proposition 187³ was recently declared unconstitutional,⁴ and the Balanced Budget Act of 1997 repealed some of the harshest anti-immigrant provisions of the Personal Responsibility and Work Reconciliation Act of 1996,⁵ anti-immigrant attitudes continue to be widespread.

Policies barring health insurance to immigrants are aimed at a group that has limited access to the health care system. Prior national studies have shown high rates of uninsurance among Mexican Americans and Cuban Americans.⁶ Local studies among Latinos in California,^{7,8} Cuban elders in Florida,⁹ and Chinese in Los Angeles¹⁰ have documented a similar picture, with residency status, income, and time in the United States being important determinants of having insurance. Recently, an analysis of the 1989 and 1990 National Health Interview Surveys found that one quarter of adult immigrants lacked insurance, with recent arrivals and foreign-born Hispanics and Asians being more likely to lack coverage.¹¹ Finally, tabulations by the Employee Benefits Research Institute on health insurance coverage for 1998 noted that 45% of nonelderly noncitizens lacked health insurance.¹²

To date, however, national studies have not focused on immigrants who are not citizens or examined differences by country of origin. In this report, we examine health insurance coverage among immigrants who are not US citizens and among individuals from the 16 countries with the largest number of immigrants living in the United States.

Methods

We analyzed data from the March 1998 supplement to the Current Population Survey (CPS). The CPS is a Census Bureau survey of the noninstitutionalized population of the United States, covering approximately 50 000 households and 130 000 persons. The overall response rate for the March 1998 supplement was 85.6%.¹³ We considered persons to be insured if they reported any health insurance coverage during the previous year, either public or private. Persons who received Medicaid, Medicare, military-associated insurance, or various insurance programs sponsored by individual states were classified as receiving government insurance. Persons who received employer-sponsored insurance as policyholders or dependents and those who purchased their own insurance were considered as receiving private insurance.

In 1994, the CPS began collecting information on country of birth, citizenship status, and year of entry into the United States. The Census Bureau considers persons to be native born if they were born in the United States, Puerto Rico, or an outlying US territory such as Guam or the US Virgin Islands, or if they were born in a foreign country but had at least 1 parent who was a US citizen. All other persons are considered foreign born.¹⁴ The CPS does not ask respondents if they are legal immigrants. In the March 1998 survey,

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14024 respondents were considered foreign born; of these, 9030 were not US citizens.

Population estimates were derived from weights provided by the Census Bureau to allow extrapolation to the entire US population. These weights, based on independent estimates of the US population, account for factors such as the CPS's complex sampling design, undercoverage, and noninterview of households. Independent estimates of the population include immigration statistics that cover some, but not all, undocumented immigrants.^{13,15}

Using formulas provided by the Census Bureau,¹³ we calculated standard errors for percentages and numerical data. These standard errors indicate the magnitude of the sampling error. In our analyses, we used parameter estimates computed by the Census Bureau specifically for the foreign-born population.¹⁵ We also estimated the proportion of immigrants who lacked health insurance from the 16 countries with the largest numbers of immigrants living in the United States. The number of CPS respondents from these countries ranged from 173 Haitians to 4663 Mexicans, with 12 countries having between 300 and 620 respondents. Owing to large standard errors, the Census Bureau does not recommend summary measures on population estimates smaller than 75 000 people.¹³

We used logistic regression to compute rates of employer-sponsored insurance among immigrants aged 18 to 64 years by country of origin after adjusting for sociodemographic and employment characteristics. Covariates included sex, education (less than high school, high school, or greater than high school), work status (full-time, part-time, or unemployed/not in labor force), income earned from employment in 1997 (less than \$15 000, \$15 000–\$24 999, \$25 000–\$34 999, or more than \$34 999), geographic region of current residence (Northeast, South, Midwest, or West), citizenship status, and length of time in the United States (less than 5 years, 5–10 years, 10–15 years, or more than 15 years). We considered full-time workers to be adults working more than 35 hours per week for at least 40 weeks during 1997.

To protect confidentiality, the Census Bureau releases neither sampling unit variables nor replicative weights, needed in multivariate modeling to obtain standard errors adjusted for survey sample design. We therefore performed weighted regression by dividing each individual's assigned weight by the average weight for the survey sample. This method results in somewhat narrower confidence intervals than would be obtained had sampling unit variables been available, but it will not change point estimates and is un-

likely to affect the overall findings. We then used direct standardization to convert the parameter estimates for each country to the percentage of respondents with employer insurance, adjusted to the average covariate distribution; that is, we present the percentage of the population that would have had employer insurance if the distribution of the covariates for that country was similar to that of the total sample. In keeping with Census Bureau conventions, we report the 90% confidence intervals for all of our analyses. All analyses were performed with SAS (SAS Institute, Inc, Cary, NC).

Results

In 1998, 26.2 million persons (90% confidence interval [CI]=25.5 million, 26.9 million) living in the United States were foreign born; 37.1% (90% CI=35.8%, 38.4%) were US citizens and 62.9% (90% CI=61.6%, 64.2%) were noncitizens. Compared with immigrants who became citizens, noncitizens were younger and had lower family incomes. Compared with persons born in the United States, immigrants who were not citizens were slightly less likely to be full-time workers, 3 times as likely not to have finished high school, and twice as likely to work in occupations earning less than \$15 000 per year (Table 1).

A total of 34.3% (90% CI=33.0%, 35.5%) of all immigrants lacked health insurance in 1997, compared with 14.2% (90% CI=13.9%, 14.5%) of the native-born population. A total of 43.6% (90% CI=41.9%, 45.2%) of noncitizen immigrants were uninsured, compared with only 18.5% (90% CI=16.8%, 20.1%) of immigrants who became US citizens (Table 2). Age, lower family income, and educational attainment were associated with lack of health insurance coverage. However, within each age and income group, noncitizen immigrants were less likely to have health insurance coverage (Table 2). A total of 43.3% (90% CI=38.8%, 47.8%) of children younger than 18 years and 11.9% (90% CI=7.5%, 16.3%) of noncitizen immigrant elderly people did not have health insurance in 1997. Although time living in the United States was positively associated with insurance coverage, even among those living in the United States for more than 15 years, 29.4% (90% CI=25.9%, 32.9%) of noncitizen immigrants were uninsured, compared with 13.0% (90% CI=11.2%, 14.8%) of immigrants who were citizens (Table 2).

Lack of health insurance coverage among immigrants was due almost entirely to lower rates of private health insurance coverage, most of which is employer-sponsored

health insurance. Analysis of employer insurance limited to full-time workers showed that 50.8% (90% CI=48.2%, 53.4%) of noncitizens had coverage from an employer as a policyholder or dependent, compared with 81.4% (90% CI=80.9%, 81.9%) of US citizens. In all groups, working in a low-income occupation was strongly associated with not having employer insurance. However, differences between the highest-paid and lowest-paid full-time workers were most pronounced among noncitizens. Noncitizens making more than \$35 000 per year in salary were 3 times as likely to have insurance as those making less than \$15 000 per year. In addition, in each employment income category, noncitizen immigrants were less likely to have employer insurance than the native born, with the largest differences among the lowest-income occupations. Among those earning less than \$15 000 per year, one quarter of noncitizens had employer insurance, compared with 58% (90% CI=56.5%, 59.5%) of the native born (Table 3).

Noncitizen immigrants were also less likely to receive government insurance than the native born or immigrants who became citizens, mostly because noncitizens were younger and thus less likely to have Medicare (Table 3). However, even among the elderly, noncitizens remained much less likely to have Medicare than either other group. While overall rates of Medicaid coverage among noncitizens and the native born were similar, analysis restricted to those with family incomes of less than \$20 000 showed that both immigrant groups were less likely to receive Medicaid than the native born. In 1997, of the 29.0 million Medicaid and 35.6 million Medicare recipients, only 1.9 million (90% CI=1.7 million, 2.1 million) and 1.0 million (90% CI=0.9 million, 1.1 million), respectively, were noncitizens.

Sixteen countries each had more than 450 000 immigrants living in the United States. These accounted for 70% of all immigrants in the United States. In general, immigrants from Latin America (except Cuba) and Asia tended to be younger, had lived less time in the United States, and had lower rates of citizenship than immigrants from Europe. Immigrants from Latin America tended to have lower family incomes than European immigrants, while Asian immigrants tended to have similar or higher family incomes than European immigrants. Immigrant groups with the lowest rates of private health insurance coverage—that is, those from Central America and the Caribbean (except Cuba)—had the highest percentage of uninsured individuals, while immigrants from Canada and Europe had coverage rates similar to those of people born in the United States (Table 4).

TABLE 1—Characteristics of Immigrants and US-Born Persons Living in the United States

	Immigrants Who Are Not US Citizens (%) ^a (n = 16.7 Million)	Immigrants Who Are Now US Citizens (%) ^b (n = 9.0 Million)	US Born (%) ^c (n = 241 Million)
Age, y			
Under 18	13.7	3.7	28.5
18–39	53.0	31.8	31.6
40–64	27.3	44.9	27.8
Over 64	6.1	19.6	12.1
Family income			
Less than \$25 000	41.4	28.2	27.9
\$25 000–\$59 999	39.7	35.0	40.3
More than \$59 999	19.0	36.8	31.8
Geographic region			
Northeast	22.1	26.9	18.8
Midwest	9.3	12.8	24.7
South	25.1	25.0	36.0
West	43.5	35.8	20.5
Education (adults aged >18 y)			
<12 y	42.3	22.6	14.4
12 y	23.3	26.7	34.9
>12 y	34.5	50.8	50.7
Time in US, y			
Less than 5	30.8	3.0	...
5–10	29.4	11.5	...
10–15	18.4	18.1	...
More than 15	21.4	67.5	...
Employment status (adults aged 18–64 y)			
Full-time (>35 h/wk) ^d	52.2	63.3	60.2
Part-time or <40 wks	21.1	18.1	22.7
Not in labor force or unemployed	26.7	18.6	17.2
Employment income (adults who worked full-time in 1997) ^d			
<\$15 000	36.5	15.5	16.9
\$15 000–\$24 999	29.9	24.5	24.3
\$25 000–\$34 999	14.3	20.5	21.3
>\$34 999	19.2	39.5	37.5

^a90% Confidence intervals (CIs) for all percentages in this column are $\pm 2\%$ of the estimate.

^b90% CIs for all percentages in this column are $\pm 3\%$ of the estimate.

^c90% CIs for all percentages in this column are $\pm 0.5\%$ of the estimate.

^dFull-time workers were those who reported working on average more than 35 hours per week for at least 40 weeks during 1997.

While some Asian groups had coverage rates similar to those of European immigrants, over 30% of Koreans and Vietnamese lacked insurance. Interestingly, immigrants from Europe and Canada, who had the highest rates of private coverage, were also the most likely to receive government insurance. For most of these immigrants, higher rates of public insurance were attributable to having a larger percentage of persons older than 64 years and thus receiving Medicare. Analysis of Medicaid status showed that the 4 immigrant groups with the highest percentages receiving Medicaid were Dominicans at 32.1% (90% CI=22.0%, 42.2%), Russians at 26.0% (90% CI=19.4%, 32.6%), Cubans at 19.0% (90% CI=11.9%, 26.1%), and Vietnamese at 16.2% (90% CI=10.0%, 22.4%).

To further explore variations in health coverage linked to employment, in Table 4 we also present rates of employer coverage by country of origin among adults aged 18 to 64 years. Fewer than half of the adults from Central America were covered by employer

insurance, while immigrants from Europe, India, and the Philippines had the highest rates of employer-sponsored coverage. Although the percentage of adults aged 18 to 64 who were full-time workers was similar for most immigrants (50%–60%), those from Central America were more likely to work in low-income occupations. Forty-five percent (90% CI=38%, 51%) of Mexican full-time workers earned less than \$15 000 per year, compared with 17% of the native-born population. In contrast, 74% (90% CI=60%, 88%) of Asian Indian workers and 71% (90% CI=54%, 88%) of Canadian workers earned over \$25 000 per year, compared with 59% of the native-born population.

For many immigrants, differences in salary and health coverage are related to the types of occupations and industries that employ them. For example, 13% (90% CI=10%, 16%) of Mexicans were employed in agriculture, an industry associated with low incomes and high uninsurance rates,¹⁶ compared with 2% of native-born full-time

workers. Similarly, higher salaries and rates of employer coverage among Filipinos are not surprising, given that 34% (90% CI=17.4%, 33.2%) were employed in the health care field, which provides higher salaries and health benefits for most of its employees.¹⁶ Unfortunately, small sample sizes precluded detailed analyses of industry and occupation among full-time workers by country of origin.

Finally, we examined whether sociodemographic characteristics and factors related to employment could explain variations in employer-sponsored insurance among immigrants from different countries. After adjusting for these differences, we found that immigrants from Europe, India, and the Philippines had rates of employer coverage very similar to those of Central American immigrants (Table 4). Among the factors examined, salary emerged as the most important predictor of having employer insurance coverage. Compared with persons with employment income of less

TABLE 2—Health Insurance Coverage Among Immigrants and US-Born Persons Living in the United States

	% With No Health Insurance		US Born ^a
	Immigrants Who Are Not US Citizens (90% CI)	Immigrants Who Are Now US Citizens (90% CI)	
Total	43.6 (41.9, 45.2)	18.5 (16.8, 20.1)	14.2
Age, y			
Under 18	43.3 (38.8, 47.8)	17.6 (8.7, 26.5)	14.1
18–39	49.1 (46.8, 51.4)	29.9 (26.4, 33.4)	20.8
39–64	39.8 (36.7, 42.9)	17.9 (15.4, 20.4)	12.9
Over 64	11.9 (7.5, 16.3)	1.5 (0.3, 2.7)	0.6
Family income			
Less than \$25 000	55.3 (53.2, 58.0)	29.0 (25.4, 32.6)	24.4
\$25 000–\$59 999	38.6 (35.9, 41.3)	17.2 (14.5, 19.9)	12.6
More than \$59 999	24.4 (21.1, 27.7)	10.4 (8.1, 12.7)	6.2
Education (adults aged >18 y)			
<12 y	54.2 (51.4, 57.0)	21.3 (17.5, 25.1)	19.0
12 y	43.4 (39.6, 47.2)	20.7 (17.2, 24.2)	16.2
>12 y	28.4 (25.6, 31.2)	15.1 (12.9, 17.3)	10.4
Time in US, y			
Less than 5	47.5 (44.8, 50.2)	35.2 (25.2, 45.2)	. . .
5–10	49.2 (46.0, 52.4)	28.6 (23.1, 34.1)	. . .
10–15	41.9 (38.0, 45.8)	26.5 (22.0, 31.0)	. . .
More than 15	29.4 (25.9, 32.9)	13.0 (11.2, 14.8)	. . .

Note. CI = confidence interval.

^a90% CIs for all percentages in this column are $\pm 1\%$ of the estimate.

than \$15 000, the odds ratios for having insurance from an employer for immigrants earning \$15 000 to \$24 999, \$25 000 to \$35 000, and more than \$35 000 were 2.7 (90% CI=2.4, 3.0), 4.2 (90% CI=3.5, 5.0), and 6.9 (90% CI=5.8, 8.3), respectively. In this model, noncitizens remained less likely to have employer insurance (odds ratio=0.82; 90% CI=0.73, 0.91).

Discussion

Almost half of all noncitizen immigrants living in the United States lacked health insurance in 1997. While age, time spent living in the United States, and household income were all related to insurance status, within each category noncitizens were much more likely to lack coverage than im-

migrants who became citizens or the native born. Even among the most vulnerable, namely children and the elderly, we found that a high percentage lacked insurance. We found that immigrants from Central America, the Caribbean, Vietnam, and Korea were the most likely to lack coverage, while immigrants from Europe and Canada had the highest insurance coverage rates.

TABLE 3—Type of Health Insurance Among Immigrants and US-Born Persons Living in the United States

Type of Insurance	Immigrants Who Are Not US Citizens, % (90% CI)	Immigrants Who Are Now US Citizens, % (90% CI)	US Born, % ^a
Private insurance (employer or self-purchased)	43.9 (42.2, 45.6)	66.4 (64.4, 68.4)	72.2
Employer insurance (adults aged 18–64 y)			
Full-time workers	50.8 (48.2, 53.4)	75.6 (71.8, 79.4)	81.4
Part-time or <40 wk	38.3 (34.4, 44.2)	49.9 (44.1, 55.7)	60.6
Not in labor force/unemployed ^b	27.1 (23.9, 30.3)	41.0 (35.4, 46.6)	42.5
Employer insurance (full-time workers)			
Employment income <\$15 000	27.3 (23.5, 31.1)	46.5 (35.4, 57.6)	58.0
Employment income \$15 000–\$24 999	52.7 (48.0, 57.4)	69.0 (60.9, 77.1)	78.5
Employment income \$25 000–\$34 999	67.0 (60.6, 73.4)	80.1 (72.4, 87.8)	86.4
Employment income >\$34 999	80.4 (75.8, 85.0)	88.7 (84.3, 93.1)	90.9
Government insurance			
Medicaid	15.8 (14.6, 17.0)	26.5 (24.6, 28.4)	26.6
Medicare	11.6 (10.1, 13.1)	7.8 (6.2, 9.4)	11.8
Medicaid (family income <\$20 000)	5.9 (5.1, 6.7)	20.3 (18.6, 22.0)	13.4
Medicare (aged >64 y)	21.9 (18.7, 25.1)	21.9 (16.7, 27.1)	31.6
	82.5 (77.3, 87.7)	94.5 (91.2, 96.0)	96.8

Note. CI = confidence interval.

^a90% CIs for all percentages in this column are $\pm 2\%$ of the estimate.

^bMost of those who were unemployed or not in the labor force in 1997 received employer insurance as dependents under someone else's policy.

TABLE 4—Health Insurance Among Immigrants Living in the United States, by Country of Origin

Country (No. Immigrants)	% With Private Health Insurance ^a (90% CI)	% With Government Insurance ^b (90% CI)	% Uninsured ^c (90% CI)	% Adults With Employer Health Insurance ^d	Adjusted % With Employer Health Insurance ^{d,e}
Canada (n=600 000)	79 (70, 88)	28 (18, 38)	10 (3, 16)	87 (78, 96)	79 (71, 85)
China ^f (n=1 390 000)	69 (62, 76)	15 (10, 21)	21 (15, 26)	74 (67, 82)	64 (54, 72)
Cuba (n=910 000)	50 (41, 59)	38 (30, 47)	17 (10, 24)	66 (56, 77)	76 (66, 84)
Dominican Republic (n=630 000)	31 (21, 41)	36 (26, 47)	36 (25, 46)	48 (36, 60)	58 (49, 66)
El Salvador (n=720 000)	37 (28, 47)	9 (3, 15)	55 (44, 65)	45 (34, 56)	62 (54, 69)
England (n=500 000)	72 (61, 83)	24 (13, 34)	20 (12, 27)	74 (62, 87)	69 (61, 76)
Germany (n=560 000)	80 (71, 89)	37 (26, 48)	7 (3, 12)	75 (63, 88)	41 (33, 50)
Guatemala (n=470 000)	34 (22, 46)	8 (1, 15)	58 (46, 71)	37 (24, 51)	72 (64, 78)
Haiti (n=480 000)	41 (29, 53)	12 (4, 20)	48 (36, 61)	55 (41, 68)	55 (47, 63)
India (n=720 000)	76 (67, 85)	6 (1, 11)	20 (12, 28)	81 (72, 90)	50 (43, 57)
Italy (n=470 000)	66 (54, 78)	53 (40, 65)	17 (2, 12)	86 (74, 99)	53 (45, 62)
Korea (n=590 000)	58 (46, 69)	10 (3, 16)	35 (24, 45)	53 (41, 66)	54 (46, 63)
Mexico (n=7 120 000)	33 (30, 36)	15 (12, 17)	55 (51, 58)	41 (38, 45)	40 (32, 49)
Philippines (n=1 210 000)	70 (62, 77)	18 (12, 24)	20 (14, 26)	80 (73, 87)	56 (47, 65)
Russia ^g (n=760 000)	52 (42, 61)	38 (29, 48)	20 (14, 27)	80 (69, 90)	50 (41, 60)
Vietnam (n=990 000)	50 (42, 59)	20 (13, 27)	34 (26, 42)	62 (53, 71)	59 (49, 68)

^aMost private health insurance is employer provided, but this category also includes a small percentage of persons who purchase their own insurance.

^bPrimarily composed of those who receive Medicare and/or Medicaid.

^cPrivate insurance and government insurance are not mutually exclusive (e.g., retirees on Medicare whose former employer provides supplemental insurance); thus, the sum of the percentages will exceed 100%.

^dUnivariate and multivariate analyses of employer health insurance are limited to adults aged 18 to 64 years.

^eAdjusted to average covariate distribution for citizenship status, education, length of time living in the United States, geographic region, work status, and employment income.

^fChina includes mainland China, Taiwan, and Hong Kong.

^gIncludes Russia and former republics of the USSR.

Among immigrants who are not citizens, government health insurance is not serving as an effective safety net. Immigrant groups with the lowest rates of private insurance were also the least likely to be receiving government coverage. Consistent with previous findings that most government expenditures for immigrants are to the elderly,¹⁷ we found that the immigrants most likely to have government insurance were Medicare recipients from European countries and Canada. We also found that, similar to what was reported in prior studies,¹⁸ poor noncitizen immigrants were less likely to receive Medicaid than the native born. Overall, noncitizen immigrants made up less than 5% of the population receiving Medicare or Medicaid.

Owing to employment in low-income occupations that do not provide health insurance, half of noncitizens who worked full-time did not have coverage. In particular, among nonelderly immigrants from Central America and the Caribbean, low rates of health insurance coverage were largely explained by lack of employer insurance. For a variety of reasons, including language, low educational attainment, and lack of skills,² many of these immigrants obtain employment in low-wage occupations. In addition, political and economic hardships in many of these countries, proximity to the United States, and restrictive US immigration poli-

cies have resulted in some of these immigrants entering or staying in this country as undocumented residents. Because of their legal status, these immigrants are easily exploited and often work "off the books" in occupations such as migrant farm worker, domestic servant, and nanny²—low-paying jobs that do not provide benefits.

For some immigrant groups, favorable rates of insurance coverage may be partly attributed to immigration policies. For example, many undocumented immigrants from Guatemala and El Salvador left their countries for political reasons but were not granted refugee status.¹⁹ In contrast, Cuban and Russian immigrants, who also escaped for political reasons, were considered refugees and thus enjoyed initiatives such as educational opportunities, training programs, business loans, direct cash, food allowances, and health care.²⁰ Whereas improved access to employment in higher-paying occupations plays a role in lower uninsurance rates, availability of government insurance programs is also important for immigrants from these countries. Owing to high rates of Medicaid participation as well as older age, immigrants from Russia and Cuba had some of the highest government coverage rates. In contrast, Vietnamese immigrants, many of whom were also considered political refugees,²¹ were more likely to be uninsured than these

other 2 groups. Despite similar rates of private coverage and Medicaid participation, Vietnamese immigrants were less likely to receive Medicare owing to their younger age.

Among other Asian groups, immigration policies may also explain some of the differences in employer-provided coverage. For example, many Asian Indians with engineering or science degrees have been allowed to enter the United States relatively easily to fill labor needs.²² Similarly, many Filipinos have been allowed to enter the United States to fill shortages in the health care industry.²³ In fact, in 1990, 48% of Asian Indians were white-collar workers,² and in our data, 34% of Filipinos were employed in the health care industry; both of these fields commonly provide health insurance for employees.¹⁶ In contrast, Korean immigrants, most of whom also immigrated for economic reasons,²¹ were much more likely to lack health insurance. In our data, 36% of Korean workers were employed in the retail trade industry, often by small Korean-owned businesses that employ other Koreans.² However, such businesses may be unable to obtain health insurance at favorable rates for their employees; only 50% of workers in businesses with fewer than 10 employees have health insurance coverage.²⁴

A major limitation of the CPS is that it does not ask respondents whether they are

undocumented immigrants. Using Immigration and Naturalization Service estimates of the undocumented population in 1996²⁵ and our data, we estimate that approximately 30% of the 16.5 million noncitizen immigrants in the United States are undocumented. Over 60% of these undocumented immigrants are from Mexico, Guatemala, and El Salvador, and we estimate that about half of the noncitizen immigrants from these countries may be undocumented. Thus, for immigrants from these countries, legal status may play a role in high uninsurance rates. For example, it is estimated that between 68% and 84% of undocumented immigrants in southern California may be uninsured.²⁶

Because they lack other opportunities, however, legal immigrants from these countries often work in occupations similar to those in which their undocumented compatriots work. For example, 60% of migrant agricultural laborers, most of whom are from Mexico, Guatemala, El Salvador, and Haiti, are legal residents.²⁷ However, like their undocumented coworkers, they do not receive any health insurance benefits. In addition, for immigrants from other countries, legal status may not play as large a role. For example, although 40% of Canadian noncitizen immigrants are undocumented,²⁵ only 9% (90% CI=0%, 20%) of noncitizen Canadians lack insurance. In contrast, although fewer than 10% of Korean noncitizen immigrants are undocumented,²⁵ 47% (90% CI=26%, 69%) of noncitizen Koreans lack insurance.

A second limitation of our study is that, while health insurance is strongly associated with access to the health care system in Latino populations,^{6,28} few studies have explored this issue among other immigrant groups. Among Latinos, health insurance, rather than language, residency, income, or ethnicity, has been found to be the most important determinant of access.^{7,8, 26,29,30} Uninsured Latinos are less likely to rate their health as excellent or very good,⁶ and among Latino immigrants who seek care but lack insurance, many have serious illnesses with a high likelihood of long-term disability.³¹ However, for other immigrant groups, acculturation, perceptions of health, and availability of non-Western medical therapies may play a role in accessing our health care system.³²

A third issue concerns ambiguity as to whether responses to insurance questions in the CPS reflect insurance status during the entire previous year, as requested, or shorter lengths of time without insurance.^{33,34} Longitudinal surveys have shown that in 1994, when the CPS found that 39.7 million people were without health insurance, 53.2 million had at least 1 month without insurance but only 19.4 million people did not have insurance for all

12 months.³⁵ While the median length of time without insurance was 6 months, Hispanics and poor persons tended to have longer spells without coverage.

In conclusion, over 40% of noncitizen immigrants living in the United States—a total of 7.2 million people—lack health insurance. Our findings highlight the importance of understanding immigration policy, immigrant status, and employment patterns in analyzing characteristics of immigrants from different countries. Recent policies have tried to make public coverage less available to immigrants,^{3,36} thereby forcing them to depend more on the private sector for health insurance coverage. However, our study shows that even among full-time workers, employers are not providing health insurance for many noncitizen immigrants. Aside from the ethical and moral arguments for providing health insurance for these immigrants, future studies will need to examine the impact of policies and practices by the public and private sectors that deny health insurance to almost half of these immigrants and whether the long-term health care costs to our society outweigh short-term savings. Ongoing debates on health insurance reform and efforts to improve coverage will need to focus particular attention on this group of immigrants. □

Contributors

O. Carrasquillo codeveloped the idea for the study; analyzed the data for the study; wrote numerous drafts, including the final draft; and discussed the ideas at various scientific meetings. A. I. Carrasquillo codeveloped the idea for the study, cowrote the initial drafts of the manuscript, edited the final drafts, and provided articles and expertise concerning immigration issues. S. Shea codeveloped and refined the intellectual content, contributed extensively to all drafts of the manuscript, and provided editorial expertise.

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